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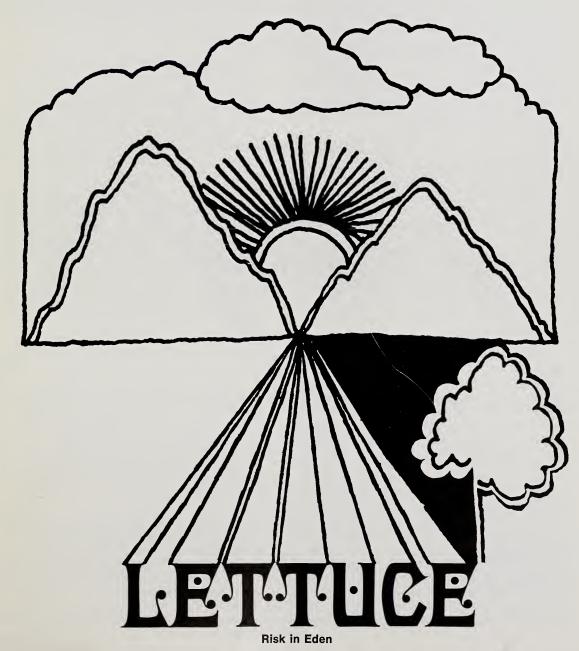
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May 1969 Lettuce: Risk in Eden

Risk in Eden
also in this issue:
Fishing for Profit?
New Bag for
Vegetables
Cuba, Cane, and
Castro
Food Prices in
Perspective

U.S.
Department
of Agriculture
Economic
Research
Service



THE AGRICULTURAL OUTLOOK

Feed grains may balance. Projected 1969 feed grain output—based on farmers' planting intentions and average yields—may reach 172 million tons. The harvest would be 4 million tons over 1968 but 4 million less than 1967. With continued strong U.S. demand next year and an improvement in exports, which have been disappointing so far this season, total 1969/70 use could be in fairly close balance with 1969 crop volume.

Supply up slightly. Assuming little change in the carryover from the 48 million tons at the beginning of 1968/69, the total feed grain supply for 1969/70 would be around 220 million tons. This is 4 million tons more than our supply at the start of the current season and highest since 1961/62.

Livestock/feed ratio favorable. October-March livestock prices were up about 7 percent over a year earlier while feed grain prices were slightly lower. The favorable ratio should encourage liberal feeding of the larger number of livestock on farms this year.

Feed grain exports slump. Obviously suffering from the recently settled dock strike, feed grain exports dropped a little below 8 million tons during October-March 1968/69. This was 5 million less than a year earlier. Though April-September exports are likely to be higher than a year ago, the season's total is expected to be around 15 percent under the 23 million tons of 1967/68.

EEC demand for feed grains off. As Europe's grain harvests and EEC tariffs increase, feed grain imports fall off. Our exports to West Germany, the Netherlands and Italy totaled only 66 million bushels in October-February of this marketing year, in contrast to 128 million a year earlier. Except for the United Kingdom, demand has generally decreased elsewhere in Europe. Japan remains our top feed grain cus-

tomer. It took 5.3 million short tons from us last year. In October-February this year corn and grain sorghum imports were 30 percent below the heavy movement of a year earlier, due mainly to the dock strike.

Hay drop stopped. Hay acreage may go up this year—after dropping 3 years in a row to a 60-year low. Farmers reported plans on March 1 to plant 62.7 million acres in hay—160,000 more than last year.

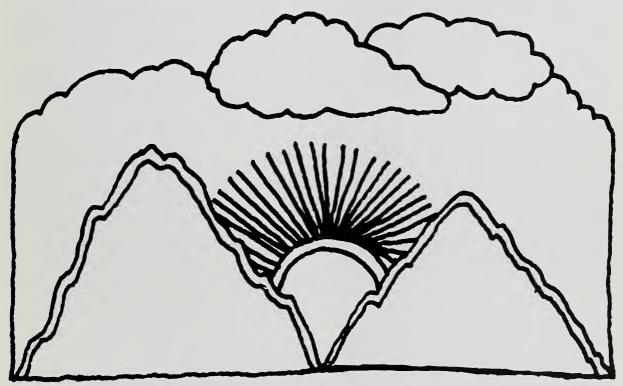
Putting protein in its place. Heavier livestock feeding of soybean and cottonseed meals is expected to bring a 4-percent increase in use of high-protein feeds. Last year's total was 17.8 million tons. Though the October-March price index of high-protein feeds was close to that a year earlier, spring-summer prices may average less than a year ago when prices rose in the last half of the feeding year.

Are farmers feeding more soybean meal? Judging by the amount of soybean meal leaving crushers' plants October-February 1968/69, more than 5 million tons moved into domestic channels—330,000 more than a year earlier. But part of this may actually be due to a backup in export stocks awaiting settlement of the dock strike. Even so, total use at home is expected to top last season's 10.8 million tons by 4 or 5 percent.

Egg output low, broiler output high. With egg production still lagging behind last year's, prices to producers averaged 10 cents higher in January-March. During the same period, broiler meat output rose 6 percent over a year ago. But strong demand sustained wholesale, ready-to-cook prices at an average of 28.1 cents per pound—up 1 cent over a year earlier. However, broiler prices this spring are expected to be lower than last year as relatively larger supplies come onto the market.

Cut-up turkey market grows. Marketings of cut-up and further-processed turkey rose to 518 million pounds in 1968 despite a sharp drop in total turkey production. Further growth is considered likely as the demand for convenience foods continues strong.

LETITUCE



Refrigerated cars helped create California's "Salad Bowl," which now grosses \$100 million a year on fresh vegetables. Yet Salinas Valley farmers find it risky.

California's fertile Salinas Valley is well known to readers as the setting of Nobel prizewinner John Steinbeck's novel, *East of Eden*.

But to producers, packers, and shippers of fresh vegetables it is better known as the Nation's largest farm producing area for summer head lettuce and a leading provisioner of more than 20 other vegetables.

Cradled protectively between the peaks of the Santa Lucia Mountains on the west and the Gabilan Range on the east, Salinas Valley is often called the "Salad Bowl" of the United States.

Average gross value of the Valley's agricultural production tops \$100 million a year—about half from lettuce alone.

But there's a snake in this garden of Eden: Marketing risk

and uncertainty.

Most producers in Salinas Valley are operators of small farms. They grow about half the lettuce crop; the other half is grown, packed, and shipped by large firms who both own land and contract for additional lettuce acreage.

Before refrigerated transport was practical, fresh vegetables had to be grown close to the area where they were to be sold. Marketing was a simple affair between farmer and local buyers.

Today's national markets and

nationwide marketing organizations make it difficult for the small independent grower to find sales outlets unless he joins a marketing cooperative or grows under a packer-shipper contract.

So the majority of Salinas Valley farmers sign one contract or another each year.

With a contract, farmers are not only assured of a sales outlet, but also find it easier to secure operating capital. And frequently—according to the specific contract—the packer-shipper assumes part of the crop risk.

Risks are still high, however. When lettuce brings a good price in the big cities, farmers harvest every carton possible from the fixed acreage ready for picking. Even low quality lettuce is harvested.

But when prices are down, even fields of top quality lettuce are not harvested, thus saving harvesting costs to the farmer. These harvest costs amount to more than half the total production cost.

The uncertainties of marketing, too, have been heightened since the early 1950's by increasing competition from vegetable producers in other areas. This has had the effect of shortening the Salinas Valley marketing season (formerly March to December) by about 6 weeks in the fall and 3 weeks in the spring.

To reduce all their risks to a minimum, Salinas Valley growers have adopted many different marketing arrangements. Among them are:

Marketing through a cooperative. Two cooperative marketing firms operate in Salinas Valley. Each represents about 10 growers. These firms act as non-profit packer-shipper's for members, helping them sell both lettuce and other vegetables.

While serving as a marketing agent, the cooperative helps members secure the best prices available. The grower must furnish all his own operating capital and

bear all the risk, but he makes all the money.

This arrangement secures high returns to the grower in a good price year, but poor returns in a bad price year.

Only a small number of growers can afford co-op membership, however, because of such restrictions as those requiring members to have enough capital to sustain several bad price years in succession.

Packer contract. Contracts between packer-shippers and producers in Salinas Valley differ widely in type and provisions. For the grower unable to join a cooperative, a packer contract guaranteeing \$135 per acre plus half the cost of fertilizer and pesticides usually brings the highest returns under good price conditions.

This contract minimizes risk under poor price conditions better than marketing through a co-op.

Packer-shippers, on their side, have a few marketing arrangements that assure them good returns, too.

Complete packer-shipper operation. About half the lettuce grown in Salinas Valley is produced by large firms that grow and harvest their own fresh vegetables for processing and sale through their own sales outlets. In a good price year they reap high returns. But in bad years they take a heavy loss.

Contracting more acreage. Packer-shippers may want to "contract in" additional acres to keep their packing plants running at capacity. A contract providing a \$135-per-acre guarantee, plus hoeing and thinning, normally offers the packer-shipper the best income per acre. It provides a relatively low net income to the grower, however.

With these and many more possible variations of contracts and marketing arrangements available, many growers continue to choose contracts which provide

significantly lower returns than others. The reason? They have an aversion to risk and their limited capital restrains them from "going for broke."

Operating as they do on a very thin margin, the fear of complete economic loss looms larger in the mind of small growers than the speculative prospect of striking it rich. (1)

Farmers Keep Feet on Ground; Let George Cropdust for Them

When it's time to apply pesticides, some farmers would just as soon "let George do it." George, in this case, frequently being a cropdusting airplane or helicopter pilot.

Farmers spent over \$173 million on custom pesticide services in 1964 (an average of \$55 per farmer). Less than \$2 million of the total went for control of livestock pests, the rest for crop protection

Applications by airplanes—and materials applied with them—accounted for nearly 70 percent of the expenditures, ground equipment less than 30 percent, and helicopters about 1 percent.

About one-third of the farmers using pesticides on crops hired some custom services and paid \$59 million for the custom application. They paid \$113 million for the materials used. This was 27 percent of the total expense for all crop pesticides whether custom applied or not.

Cost of application alone ranged from 19 percent of total cost of custom pesticide services for vegetables (except potatoes) to 75 percent of custom cost for hay (other than alfalfa) and pasture.

Cotton got more extensive custom pesticide servicing than any other major crop. Growers spent a total of \$65 million for it. But custom service was most expensive for certain fruits and nuts (average cost: \$1,661 per farm) and potatoes (average cost: \$1,490 per farm).

Custom operators used spray forms of pesticides for 88 percent of all their applications, dusts for 10 percent, and other types for the balance.

The combined annual cost of liquid pesticides and their custom application ranged from \$1.60 per acre for spraying some grains by airplane to more than \$20 an acre for spraying some fruits with ground equipment. (2)

"Jones Farms, Inc.," Often Is Hallmark of Modern Family Farm

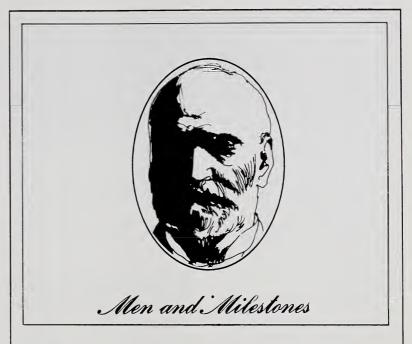
How important are corporations in farming and ranching? What kinds exist? Are their numbers increasing? What do they produce?

These were some of the questions answered in a recent survey of 11,500 agricultural corporations in 47 States (excluding only California, Hawaii, and Alaska).

The study, conducted by the Economic Research Service, sought to identify every incorporated business producing one or more farm products. Such firms ranged all the way from small, one-man corporations to large, publicly held firms having many business interests in addition to farming.

By far the most common type —68 percent of the total—were incorporated family farms. Typically, these were larger-than-average businesses that had evolved from sole proprietorships or from family partnerships. They have reached a size, in terms of assets, where problems of inheritance taxes and transfer of property to children make it desirable to incorporate.

Nearly two-fifths of the farm corporations studied had sales of less than \$40,000 in 1967. About one-third had sales of \$100,000 or more. This was less than half the



FROM "TAMA JIM" TO MR. SECRETARY

The year is 1896. William McKinley has just been elected President. Two Iowans fight bitterly for a place in the new Cabinet. Henry Wallace, editor of Wallace's Farmer, (father of Henry C. and grandfather of Henry A .- both of whom became Secretaries of Agriculture) suggests a compromise: Iowan "Tama Jim" Wilson for Secretary of Agriculture. The two rivals withdraw and in 1897, Wilson begins the first of four terms at the helm of the USDA—the longest anyone has yet served in the Cabinet.

James Wilson came to this country from Scotland as a child in 1852. He later attended Grinnell College and settled in Tama County, Iowa.

In 1867, "Tama Jim," as he was called to distinguish him from another James Wilson, was elected to the first of three terms in the U.S. House of

Representatives where he backed many farm proposals.

He wrote articles for farm journals, joined farm organizations, and later became Professor of Agriculture and Director of the State Experiment Station at Iowa Agricultural College.

Once appointed Secretary of Agriculture, this canny Scot immediately set about attracting bright young experts and scientists from agricultural colleges to come and work for him.

He encouraged scientific experiments all over the United States, started farm demonstrations in the South, and implemented the extension service. He also fostered research on tuberculosis in cattle.

As a result of his activities during his 16 years in office, Congress passed legislation on meat inspection, pure food and drugs, plant and animal diseases, insect pests, forestry, irrigation, road building, and agricultural education. (3)

number with sales of less than \$100,000. Fewer than 1,000 had sales of \$500,000 or more.

As a group, corporate farms are not typical of all farms. Their production is highly selective. The tendency is to concentrate in beef cattle, in poultry, and in fruits and vegetables rather than in field crops.

Most of the larger corporations —\$500,000 or more in sales—centered around cattle feedlots, broiler, egg, and turkey production, or the growing of fruits and vegetables for processing.

Such farms generate high gross sales, but production expenses take a bigger share of gross income than is generally the case for less specialized farms.

Two-fifths of all farm corporations had one or more business activities in addition to farming. These outside activities were about equally divided between those related to farming—farm supplies, processing, marketing, and the like—and those not connected with farming at all.

Only one-fifth of 1 percent of all commercial farms have "outside" ownership likely to be separate from management. Often the actual owners are located some distance away or, in the case of a publicly held firm, the stockholders may be scattered all over the country. However, less than 100 offer capital stock to the public through organized security markets.

Corporations of this type account for about 2 percent of total gross farm sales.

These outside corporations also divide themselves into those with farm related business activities and those not connected with farm activities.

A processing firm, for example, may own and operate one or more farms to assure itself of adequate supplies of crops or livestock.

Another outside firm may be incorporated solely to own and operate one or more farms as

profitable business ventures.

Some outside corporations—often publicly owned—have been involved in farming for many years. Others have recently expanded from farm related businesses into farming itself. And a few have gone into farming as a business opportunity, because of appreciating land values or as a tax shelter for other corporate income.

In the 47 States covered by the current study, 46 percent of the farm corporations were incorporated before 1960, 45 percent between 1960 and 1966, and 9 percent in 1967 and early 1968.

U.S. Industry, Gulping Castor Oil In Huge Doses, Tops World Use

Castor oil—once the bane of little boys and girls—has a new glamor image. It's mirrored in plastics, resins, paints, varnishes, fatty acids, racing fuels, and lubricants for jet planes.

The United States is the world's leading consumer and importer of castor oil. And U.S. industry is guzzling millions of pounds of it every year.

Our use of castor oil—virtually all industrial—has gone up from an annual average of 137 million pounds during 1960-64 to around 160 million pounds in 1968.

About two-thirds of the castor oil used in this country in 1968 was imported—almost 90 percent from Brazil. The other third came from our own output and supplies released from the General Services Administration.

A crop price support program for castorbeans was established last year to encourage domestic production.

And according to trade sources, U.S. farmers harvested a record 44,000 short tons of castorbeans from about 70,000 acres. This was almost double the 1967 acreage and three times the 1967 output. (5)

Researcher's Best Friend May Be A Good Data Processing System

A computer can answer a highly involved question in seconds—if it's been programed with the right system.

But setting up that system may take years.

Example: Answers to complicated questions involving feed-livestock prices, costs, and ratios can today be obtained on a computer in something like 20 minutes. But several years of human effort went into detailed data processing documentation.

Similarly, a water resource planning system, when operational, will provide answers to an involved water resource development question in 1 to 3 days.

However, man-years of effort are still going into the development and implementation of this system.

Computers cannot generate systems. Man must. But computers can relieve researchers of many hours of data manipulation and broaden the scope of analysis. They can also produce significant increases in output per researcher.

Some current applications of computer systems in agriculture include:

A feed-livestock model analyzes price and production effects of alternative feed grain programs, changes in feed prices, and other variables. Over 100 variables can be handled in about 20 minutes.

The national model of crop production response provides a framework for estimating year-to-year changes in the production of major crops.

About 90 smaller submodels are updated annually to depict important relationships affecting production response in major producing areas.

Unlike the feed-livestock model, the national crop response model provides estimates for different farming areas as well as the Nation as a whole.

A water resources development planning system, scheduled to be in operation by December 31, 1969, has two objectives: to project agricultural production for the years 1980, 2000, and 2020; and to provide a data base for analyzing alternative water resource proposals. (6)

Big Machines Help Reap Savings For Farmers with Larger Farms

More engine horsepower, more comfort features, more accessories. It may sound like a new car, but it could just as accurately describe today's farm tractors and machinery.

The reasons have little to do

with style, speed, and luxury. They have to do with the steady growth of the average American farm—in size, in gross income, and in technical complexity.

From 1967 to 1968, sales of large size combines—along with corn and grain heads for them—and of tractors with 100 h.p. or more, increased.

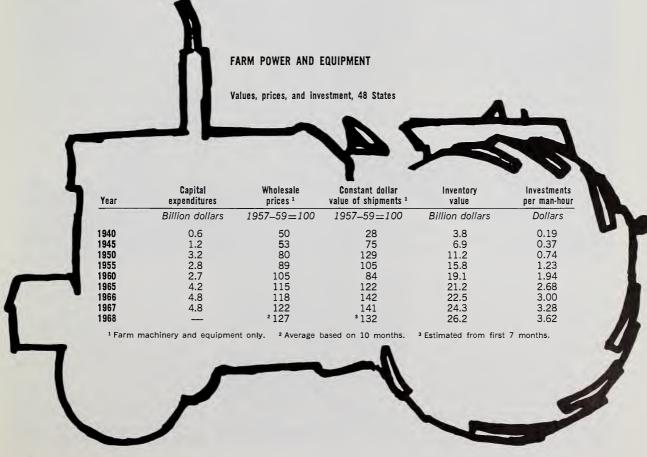
Only 1 percent of all tractors sold to farmers in 1962 were 90 h.p. or more. Last year, tractors of 90 h.p. or over made up 33 percent (over 47,000 in number) of all sales.

What's more, farmers bought more wheel tractors of 100 h.p. and over during January-October 1968 than they did in the same period a year earlier, even though total sales of wheel tractors to farmers dropped 11 percent.

Demand is expected to continue strong for all large farm machines as the size of farm operations grows.

Since 1960, farmers have spent an increasing percentage of their gross farm income on machinery and motor vehicles. On a current-dollar basis, the value of farm machinery shipped from factories for use on U.S. farms in 1967 was \$2.4 billion—largest in history.

Over the next 3 to 5 years, farm machinery will follow price trends in the general economy, with continuing moderate increases likely. New machines for harvesting fruits, nuts, vegetables, and tobacco are also expected to have a small but increasing effect on farm machinery sales. (7)





Fishing enterprises are one way farmers can get their feet wet in recreation with only small investments. But in Wisconsin, small enterprises netted small returns.

Angling for a way to supplement farm income? Fishing might be the answer.

Fee fishing ponds and boat rental businesses have caught the fancy of a number of farmers who want to add a recreation sideline. The charm lies in the fact that it's possible to start small—sometimes with capital investments of only a few thousand dollars.

But don't set up a fishing enterprise if you don't like people. And do know something about fishing techniques and equipment before you take the plunge.

This advice comes from 58 operators of fishing enterprises in Wisconsin. They consider these two attributes the most important personal characteristics associated with successful management of their businesses.

Here are some other pointers for farmers considering fishing enterprises.

—If you control access to a natural lake or river, either through ownership or rental of the water frontage, a boat rental business is a likely choice. But be prepared to offer customers more than boats.

Forty-five of the Wisconsin operators were in the boat rental business—but as a rule, boat rentals represented only about a fourth of the operators' recreation income.

Much of their money was made from the sale or rental of related goods and services—bait supplies, guide services, cabins, sporting equipment, and fish cleaning—to name but a few.

—The big income earners for fee fishing pond enterprises were the fish themselves—not related services. But operators with the requisite facilities and licenses for raising, spawning, and selling fish—in addition to permitting people to fish for a fee—made the most money of the 13 Wisconsin operators who ran such businesses.

Sale or rental of related goods and services didn't contribute as much to the incomes of fee fishing enterprises as they did in the case of boat rental businesses. But it didn't hurt returns any if the fee fishing pond operator had overnight cabins to rent or tent and trailer sites.

—Advertising paid, according to the 58 Wisconsin operators. However, few of them paid very much for advertising. Instead, they felt a satisfied customer was the best publicity they could get. Most made a concerted effort to maintain good relations with present or former guests. Some also used roadside advertising and individual brochures. The common advertising media—newspapers, magazines, radio, and television—were used very little.

—Establishing rates of charge for services is easier if you know what other people in the business are doing. More than a third of the Wisconsin operators discussed rates with others in the fishing enterprise industry. Nineteen of the operators said they charged the same rates as others. Only a few charged less than the going rate to attract business. Only a few reduced rates in the off-season.

—Though it was possible to start a fishing enterprise with a small capital investment, smallscale enterprises weren't particularly lucrative.

Operators of small-scale boat rental businesses in Wisconsin had an average of \$3,600 invested in recreation facilities. However, their net returns to family labor and management averaged only \$1,900, after deducting recreation costs and 6-percent interest on owned or equity capital from gross recreation income.

For the small-scale fishing



ponds, average investment in recreation was about \$5,500. But net returns averaged only about \$300. Net returns from the largest fishing ponds were about \$3,600 with an investment of nearly \$75,000.

Being "too small" was one of the Wisconsin operators' most common complaints. Other problems which they encountered were high taxes, labor shortages, adverse weather, liability insurance costs, and health and sanitary requirements.

—A number of the operators indicated industry associations, such as local or state recreation associations and chambers of commerce, were a help in their business and could play a role in future expansion and development.

Members of such groups felt they benefited a great deal from the exchange of ideas. In addition, they were kept informed of new developments and often got some advertising leads as a result of their participation.(8)

New Mexico's Many Recreation Facilities Yield Royal Revenues

What with Carlsbad Caverns, the White Sands National Monument, the Enchanted Mesa, Indian pueblos, and Wild West ghost towns, New Mexico has never lacked for tourists.

Tourism is, in fact, the State's fourth largest industry—outranked only by mining, agriculture, and manufacturing.

Tourist spending, estimated at \$112 million during 1968, is expected to grow rapidly in the years ahead as more people with more money and leisure look for out-of-doors places to spend it.

New Mexico now boasts national forests covering almost 9 million acres, where visitors can camp, fish, hunt, ski, or simply sightsee. Then there's nearly 10 million acres more of govern-

ment-owned land set aside for recreation uses. It's got 13 reservoirs for water sports, and 23 mountains for climbing, and there are 19 Indian pueblos and many, many ghost towns.

Big booms are projected for most of the State's recreational facilities. Visits to New Mexico's ski areas doubled from 1955 to 1958, doubled again by 1960, doubled again by 1963. At this rate, the number could be up to 400,000 by 1980, and more than 1.3 million visits by 2000.

And the way things have been going for other sports, the total number of fishing and hunting licenses sold may triple between 1950 and 1975, while boat registrations could rise more than fivefold between 1964 and 1975.(9)

Most Taxes on Farm Real Estate Are Levied by Local Governments

While many of the good things in life are free, many necessities aren't.

It takes money to educate a community's youngsters, to build its roads, to assure a safe water supply.

Most taxes on farm real estate are imposed by local governments and are used to pay for a wide variety of community services. Higher prices for the things local governments buy, increased salaries and wages, and in some instances new undertakings have made for bigger government bills—and hence higher taxes on farm real estate.

In 1967 property taxes levied on U.S. farmers totaled roughly \$2.3 billion—8 percent more than the amount levied in 1966. This was the sharpest increase recorded in 25 consecutive years of tax hikes. Preliminary estimates indicate a further increase of about 7 percent in 1968.

There were 19 States in which farm real estate levies rose by more than 10 percent from 1966 to 1967. Three States had increases of more than 20 percent. The sharpest gain, 31.4 percent, was in Delaware.

One measure of the impact of farm real estate taxes is the proportion of gross farm income that

Leisure Pleasures

Many people with time on their hands have the same thought in their minds: Relaxing.

Men or women, married or single, this was the prime leisure time goal sought by two-fifths of a group of St. Louis residents interviewed recently. But after that, preferences differed.

Married men and women ranked being with their families their No. 2 goal, having fun No. 3. They diverged on No. 4. The married men opted for physical exercise. The women preferred companionship.

More of the married men than women wanted to spend their leisure making improvements around the house; more of the women, however, wanted to "do something different" or develop a skill.

Singles were often wide apart on their leisure time goals. For the unmarried women, being with their families was the second choice after relaxation. But the bachelors' second choice was "having fun."

None of the single men wanted to spend their time learning about new places or things or earning extra income, which were the goals of 6 and 4 percent of the women, respectively. Yet 5 percent of the single men would devote their leisure to making improvements around the house, which none of the unmarried women wanted to do. (11)

is used to pay them. In 1967 the proportion was 3.9 percent, the highest it's been since 1934.

Another measure of the impact of farm real estate taxes is the tax per \$100 of full value. In 1967 it was \$1.05, compared with \$1.02 in 1966. This was the first significant change in 7 years. Taxes rose more rapidly in 1967 than did the land's market value. (10)

Visible and Invisible Uses of Open Land Make It Valuable Property

What does a plot of land do when it looks like it isn't doing much?

It does a lot of things that make it a valuable piece of property.

Open land—free of buildings, free of traffic—often serves as a buffer between different types of development.

Even a strip of undeveloped land along a highway reduces the noise and dirt that would detract from the livability of nearby residences.

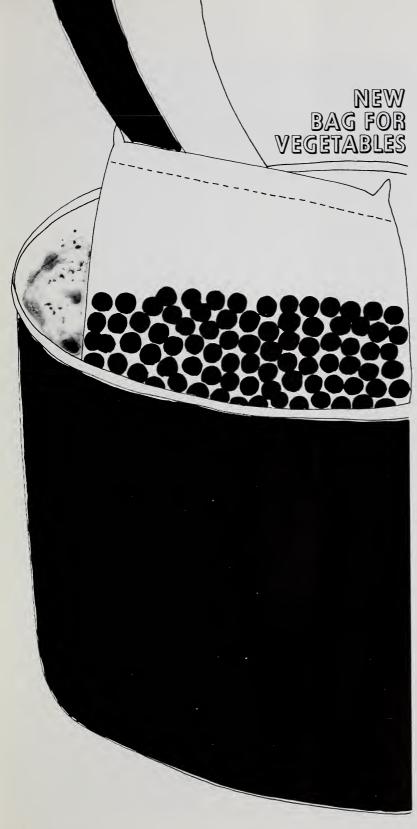
Of course, most open land in the United States isn't completely undeveloped. Generally, it's used for farming, forestry, recreation, or institutional uses. But whatever its obvious use, it does more than meets the eye.

Open land provides relief for the eyes and ears from manmade cityscapes and sounds. It also provides breathing room—where noxious air of cities can be diluted with fresher air.

Open land can help avert the hazards of flooding water. The sidewalks and pavements of our cities and suburbs absorb no water, and excessive runoff can be costly. Open spaces let rains and snow seep down into underground streams and reservoirs—replenishing them while restricting runoff.

Where building is booming near cities, transportation routes, and outdoor recreation attractions, land kept in open-space uses can be a framework to structure the area's development.

Preserving large amounts of open land, particularly around densely developed areas, would make it possible for people to have the best of both worlds: To live where there are urban facilities and services while at the same time being near the open spaces so many individuals in the city long for. (12)



Food processors keep on doing their thing—finding newer, more efficient ways to market the food we eat. One successful venture is frozen, boilable pouch vegetables.

The continuing multimilliondollar "pruzzle" of the frozen food industry is clued to the question: Which of today's new products is most likely to turn into an old favorite in tomorrow's menu?

Boil-in-the-pouch frozen foods have proved to be one of the winning answers—especially when

linked to vegetables.

Consumer advantages claimed for them: Built-in seasoning, ease of cleanup, reduced cooking odors, and variety. Processors may expand their sales and the whole vegetable industry, including farmers, may gain if these new frozen vegetable products increase in volume.

Sales of frozen vegetables in boilable bags now total nearly 130 million pounds a year, worth over

\$73 million at retail.

The pouched volume is about 6 percent of the total frozen vegetable pack of 2 billion pounds yearly (not counting potatoes). And this, in turn, is nearly onefifth of the frozen food industry's 11-billion-pound annual output of all frozen foods.

It is not known whether this new form adds to vegetable consumption, or simply substitutes for other frozen vegetables. The frozen vegetable industry does show total volume gains, so presumably this package-process concept does increase sales.

Still another unanswered question: Is this concept applicable to other commodities?

The answer is ves. So far, vegetables have led the field of foods that can be boiled, bag and all, in their film packages. Some of these combination foods—like vegetables in butter, cheese, or cream sauce—are designed to be cooked in the pouch.

Seafoods, some of which are

now coming on the market, may have equal success.

Some meats, such as ham and pastrami, are merely heated before use.

And still others—mainly frozen fruits and berries—are merely heated in boiling water to be thawed in the pouch. There may be many other uses for the food pouch yet undiscovered.

Boilable pouched frozen vegetables, launched commercially in the early 1960's, came as a result of product development by several food processing companies—with help by the USDA and a number of packaging and equipment firms.

The striking success of the one-shot vegetable package is indicated by the following estimates of production and retail value. (There are 7-1/2 pounds per 12-pack case.)

Year	12-pack cases	Dollars			
	Million				
1961/62	1.0	3.5			
1962/63	2.0	7.2			
1963/64	7.8	28.9			
1964/65	11.5	46.0			
1965/66	15.4	61.6			
1966/67	16.9	70.1			
1967/68	17.2	73 1			

Boil-in-bag vegetables such as peas, corn, and beans sold at retail in 1961 for 29 cents per 10-ounce package. The price tag was changed in 1962 and hasn't changed much since.

Cut corn leads the pack of frozen vegetables in boilable pouches. The National Association of Frozen Food Packers estimates the 1967 cut corn packed in frozen boilable pouches at 26.3 million pounds, followed by green peas (16.9 million); mixed vegetables (13.9 million); and broccoli spears (11.9 million).

Other frozen boil-in-bag vegetables going over the 1-million-pound volume in 1967 were spinach, regular green beans, baby lima beans, brussel sprouts, cauliflower, Fordhook limas,

french-cut green beans, and asparagus. (13)

Newest Fashions in Cigarettes Lower Tobacco Content in Some

Changes in consumption patterns aren't the only reasons for lower tobacco use in cigarettes. Style has a lot to do with it, too.

Cigarettes are getting longer, which might mean more tobacco per cigarette—except that they're also getting slimmer, and some of that new length is in a filter tip.

Since about the mid-1950's the average quantity of domestic tobacco used to make 1,000 cigarettes has dropped about 29 percent.

In fiscal year 1967/68, U.S. cigarette output totaled 571 billion—19 percent greater than in 1958/59. But the domestic tobacco used for cigarettes weighed virtually the same as in 1958/59—about 1,145 million pounds (farm-sales weight).

It would have been about 215 million pounds more last fiscal year if the 1958/59 relationships between tobacco and cigarettes

Texas Gins

It's getting more expensive to gin cotton in West Texas—mainly because there's less of it to go around.

A continuing ERS study of West Texas ginning costs shows that ginning firms with an hourly capacity of eight bales averaged 2,516 bales for the entire 1967/68 season—a drop of 20 percent from the season before. And even during the 1966/67 season, these smaller gins were only using 53 percent of their capacity.

The situation was similar in the largest firms studied as well.

For the smaller firms, cost per bale rose from \$25.80 to \$29.35 (standardized book cost—with depreciation and interest standardized at a uniform rate for all firms). Costs in the largest gins rose only a nickel—from \$32.20 to \$32.25.(17)

had held firm.

Increased use of imported tobacco accounted for about a fourth of the reduction in need for domestic tobacco. (Imports have leveled off in the first half of this fiscal year.)

The rest of the reduction is attributed to sheet tobacco methods—which use a greater part of each leaf than was possible before, the increased popularity of filter tips, slimmer cigarettes, and longer filters.

If tar and nicotine ratings become an important matter in cigarette choice, they may be lowered by using less tobacco.

Finally, while cigarettes produced domestically will remain a large outlet for U.S. tobacco growers, prospects are not favorable for much future growth—barring favorable developments from new knowledge or technology. (18)

Freeze-Dried Coffee Stimulates Some Shifts in "Instant" Market

Questions brewing for coffee processors:

Will freeze-dried coffee change the type or quality of beans used in instant coffee?

Will growth of freeze-dried coffee sales outpace that of other powdered instants or make inroads in the roasted market?

Will a rising use of freezedried coffee lift the level of total coffee consumption?

The answers aren't as instant as the new types of coffees they involve.

Freeze-dried coffee is brewed in the ordinary manner, then frozen. The moisture content is removed in a partial vacuum. Freeze-dried is now available in most U.S. markets and makes up about 8 percent of total instant coffee sales. Some expect it to capture about half the soluble market in the next 5 years.

But there are a few hitches.

It takes hours to get the water out of freeze-dried coffee, in contrast to 8 or 9 seconds for ordinary instant coffee which is "spray-dried." The present cost of a freeze-drying plant is much higher than that of a spray-drying plant—with more danger of early obsolescence as freeze-drying becomes more streamlined.

Plus, freeze-dried coffee requires higher quality, more expensive beans to get a good product. The final product currently sells for about one-third more per ounce than spray-dried because of these higher costs.

Some coffeemen believe that this price differential. with freeze-dried coffee will be lucky to capture a fourth of the instant coffee market. They feel that much of the poor reputation of spray-dried coffee has come from using lower quality beans and high extraction rates. And they anticipate that spray-dried coffee will have to increase in quality (by using better beans)—which will mean higher prices—to compete with its freeze-dried cousin.

Similarly, freeze-dried coffee may have to lower its quality, using cheaper beans, to lower costs and capture a significant share of the instant coffee market.

What about the long-term future?

So far, instant coffee of both types has picked up less than one-fifth of total coffee consumption. Freeze-dried coffee could take over part of the roasted coffee market as well as make inroads into the market for instant, but no one is predicting how much.

It's too early to decide what the ultimate impact of freeze-dried coffee will be. But it may already have had some effect. The previous downtrend in coffee consumption has been stemmed in recent years. (16)

Medley of Machinery Finds A Home in Food Service Business

Dinty's Diner doesn't boast a silver burnisher, but there's a meat chopper and patty maker behind the counter.

The away-from-home eating industry is a highly diversified one, and there's room in it for a wide range of equipment.

ERS recently completed a survey representing over 371,000 food service establishments. About 93 percent were public eating places. The rest were institutions such as hospitals, colleges, and universities. Separate eating places (establishments whose primary function is the sale of prepared food for on-premise or immediate consumption) made up 59 percent of the public eating places.

Receiving and storage equipment is important in the food service business. About 93 percent of all establishments surveyed had at least one reach-in refrigerator in workable condition. Separate eating places possessed 56 percent of them. Walk-in refrigerators and handcarts were more likely to be found in the larger food service operations such as institutional kitchens.

Fabric Future

Cotton goods that never need ironing will be a major goal of the 1969 cotton industry research and promotion program.

A budget of \$10 million has been approved for the overall program. About one-third of the budget is allocated for research, where an all-out effort is underway to develop a satisfactory durable-press finish for 100-percent cotton goods. The rest is budgeted for advertising and promotion.

Funds for the program are collected from upland cotton producers, under the Cotton Research and Promotion Act of 1966. (29)

Less than 10 percent of the establishments accounted for all of the 18,000 bread slicers, 32,000 power meat saws, 21,000 tenderizing machines, and 16,000 dough dividers reported.

Food service outlets in factories, mills, hotels, motels, and tourist courts had more than 20 percent of the estimated 7,700 microwave ovens in use by all the establishments covered.

Not surprisingly, public eating places had 96 percent of the open hearth char broilers and 98 percent of the pressure fryers.

And to clean up—institutions had about 30 percent of the automatic pet and pan washers and power food waste disposers.

As for silver burnishers, hotels, motels, and tourist courts—and separate eating places—accounted for most of them. (14)

Excess Grain Elevator Capacity Brings Higher Costs for Storage

A surplus of storage space might be great in a new house, but it can mean trouble for a grain elevator.

What used to be a surplus of government-owned grains has been pretty much thinned out by overseas shipments and domestic disappearance. And production of most grains has been cut back—at least from levels of a few years ago.

Result: Only 39 percent, on the average, of the available "closet space" for grains was used during the 1967/68 season. And by 1969/70 it's not expected to go up much—just to 40 percent.

Peak use of storage capacity, during the 1967/68 season got as high as 50 percent nationwide, while for 1969/70 it may hit a 55-percent level.

Even though this means indefinite reduced activity for some storage firms, recent changes in grain transportation patterns have encouraged the building of new facilities in some areas of the country. These are located to take advantage of the growing availability of lower rail rates through rent-a-train or unit train arrangements.

The Economic Research Service recently updated a study of the 1964/65 costs of storing and handling grain to uncover the effects of changes in wage rates, assets, volumes, taxes, and other major items on operating costs.

The findings pointed up that large investments in elevator facilities meant higher depreciation and interest costs as stored volume went down—and also brought higher operating costs along with them.

Management and labor costs have moved upward since the original study, along with the general rise in the cost of living.

And fuel requirements went up too, as more drying and cleaning equipment was installed to accommodate changing harvest patterns, especially in the Corn Belt.

The combined effect? An overall increase in average cost per bushel stored of nearly 100 percent between 1964/65 and 1967/68 in plants of similar size.

The major portion of the increase in storage costs is due almost entirely to the smaller amount stored which made for higher fixed costs per bushel. Increases in variable costs were only minor in comparison.

The average cost for storage alone in 1967/68 was 11.8 cents per bushel at country terminals, 15.5 cents per bushel at inland terminals, and 13.3 cents per bushel at port terminals.

(Costs in 1964/65 ranged from 5.4 cents a bushel at country plants to 7.2 cents at port terminals.)

Because of the slight boost in grain available for storage in 1969/70, storage costs per bushel are projected at somewhat lower levels for next season, even though continued increases are

expected in building, labor, and other costs.

The trend toward increasing costs and changes in transportation point to increased competitive pressures in the industry. Some firms will likely be unable to compete and eventually be forced to cease operations.

Those that remain and operate at a profit will be faced with intense competition for available supplies of grain. This should eventually lower storage costs for the industry. (19)

Boost in Supplies of Molasses Prompts Greater Use in Feeds

Molasses will be showing up more in feedlot menus during the 1968/69 feeding year.

Supplies from domestic sources are expected to be up 5 to 7 percent above the estimated 354 million gallons produced in 1967/68.

All of the boost is coming from the big 1968 sugarbeet crop which was up almost a third from 1967. Production of sugarcane and corn molasses is not expected to change much.

Along with the larger supplies come lower prices. Refiners' blackstrap at Chicago sold for about 16.5 cents a gallon in January—down 5 cents from a year earlier, and 3 cents below the 1962-66 average for that month.

This puts molasses prices below those for corn. In January, the price of 6 gallons (about equal in feeding value to a bushel of corn) averaged 98 cents at Chicago. At the same time, No. 3 Yellow corn was \$1.17 a bushel. Molasses prices will probably continue to be below those for corn the rest of the year.

The January molasses/corn prices relationship was just the reverse a year ago. Molasses was 18 cents higher than corn. But on a long term basis, molasses/corn values are about equal. (15)

Revised Grading System, Leaner Hogs, Help Perk up Pork picture

Consumers like their pork lean. And they are getting leaner pork, thanks to the hard work of meat packers and hog raisers.

To find out how much progress is being made, USDA surveyed grades and measurements of hogs slaughtered in 1967/68—and compared the results to a similar survey from 1960/61.

Nearly one-half of the hogs graded U.S. No. 1—a sharp increase over 7 years earlier when only one-third made the grade. U.S. No. 1 is the lean, meaty hog yielding a high percentage of the four lean cuts consumers prefer.

Near the fatter side of the scale, hogs grading No. 3 were estimated at 12 percent of the 1967/68 crop—down from 25 percent for the 1960/61 season. No. 2 hogs remained about the same—35 percent in 1967/68, 38 percent earlier. Hogs grading Medium and Cull amounted to less than 3 percent in both surveys.

Carcass grades were obtained for 57,000 hogs, or close to one in a thousand of total slaughter during the past season.

The grader sampled and graded 121 full-day hog kills in 56 Federally inspected plants across all regions of the U.S. and all seasons of the year.

The grading standards used had been in effect from 1955 to 1968. Official standards for carcass grades were revised in April 1968. A new U.S. No. 1 grade was defined, and the former No. 1 reallocated partly to the new U.S. No. 2. Other grades were renamed—old No. 2 and 3 becoming new No. 3 and 4.

The revised grades provide a better basis for evaluating differences in meatiness and yield for today's leaner hogs. And they offer a benchmark for measuring future improvement. (20)



Today, as in the past, sugar still rules the economy in Cuba and ranks foremost in Castro's plans and promises to create a state of agricultural abundance.

About 8 million people live on the island of Cuba—just 90 miles from Key West, Florida.

More than half of these people make their living by growing and processing farm products. Yet Cuba's agricultural output per person is about 35 percent less than it was 10 years ago when Fidel Castro and his revolutionary government took over.

Today, as a decade ago, sugar provides the major share of farm income and is the main export. It ranks foremost in the government's ambitious production goals for various farm products that include rice, coffee, cocoa, cotton, and livestock.

The 1970 goal for the sugar crop is 10 million metric tons—double the output of 1968. And in view of Cuba's export prospects for sugar the goal seems unrealistic.

A concerted effort to grow more sugarcane could, however, raise the overall index of agricultural production above its present low level (80 in 1968, compared with the base of 1957-59 = 100).

Rice and fruit may also show some increase in output over the next 2 to 5 years. But promises of "abundance" probably will not be fulfilled in all the targeted areas within the next 5 to 10 years.

Cuba is still plagued by insufficient agricultural know-how, even though foreign specialists have been imported to replace Cuban agriculturists who left the country after the revolution.

Skilled cane cutters and other knowledgeable farm workers are in short supply. "Volunteers" from the city, the military, and the schools are not efficient. And mechanization is not likely to supplant much hand labor for many years, especially for cutting of sugarcane.

One of the biggest roadblocks to rapid increase in production is the cumbersome state planning mechanism which reaches far down the line—even to relatively simple farm decisions.

The state controls all parts of the economy—agriculture, industry, services, commerce—and usually owns and operates them as well.

Confiscation, expropriation, and purchase since 1959 have converted from 65 to 85 percent of agricultural land into state farms. The rest is in private holdings that average 67 hectares (about 165 acres) or less.

Frequent changes in state administration and instructions delay and confuse efforts to expand output. Droughts and hurricanes of the past 3 years have not helped matters either.

Even so, Cuba's agricultural output (supplemented by food imports) provides most Cubans with an adequate diet in terms of energy value, though per capita supplies of meat and dairy products are below pre-revolutionary levels.

Too, there is still plenty of productive land for possible agricultural advances in the future.

These advances will hinge on the success of far-reaching government goals to expand irrigation and drainage facilities; build fertilizer plants; train technicians and agricultural specialists; broaden research and extension services; and provide farm credit.

It is quite possible for Cuba to provide most all the basic foods needed by its growing population. Exceptions would be fats and oils and wheat (the latter is now all imported). Cotton and other fiber output could supply domestic industry.

Cattle numbers have risen in

recent years. They stood at an estimated 7 million head in 1967, and the greater numbers are now beginning to be reflected in larger meat supplies. Continued expansion in the livestock industry can be expected.

Despite Cuba's good agricultural potentials, they are not likely to be realized before 1975 to 1980. Meanwhile Cuba will continue to need outside financial and technical aid.

In the decade preceding the Castro regime, the United States was the top customer for Cuba's exports and the major source of its imports.

Our exports of farm products to Cuba averaged approximately \$140 million yearly throughout the 1950's. And our agricultural imports from Cuba averaged more than \$390 million a year. Imports of Cuban sugar alone filled over one-third of our total sugar needs.

All this changed in the sixties. Our trade with Cuba fell to zero, and the USSR and other Communist countries became Cuba's main trading partners. They take more than three-fourths of Cuba's exports and provide about the same proportion of its imports.

Spain and Canada have been Cuba's main non-Communist agricultural suppliers in recent years. Other major non-Communist suppliers include the United Kingdom, Japan, the U.A.R., Morocco, France, the Netherlands, West Germany, and Italy. (21)

Bouquet of Cut Flowers Plucked From Abroad Burgeons in Value

May flowers come with April showers. They also come with foreign bills of lading.

We imported about \$15.3 million worth of nursery and greenhouse stock in the year ending June 30, 1968. And we exported \$10.3 billion worth.

The total value of our horticultural trade, both incoming and outgoing, is still relatively small in relation to our total agricultural trade, but it has gained more than 26 percent since fiscal 1962. Most of this gain is due to increased U.S. exports.

However, a 400-percent rise in our imports of cut flowers is a significant development.

U.S. purchases of fresh foreign blooms rose in value from \$110,000 in 1961/62 to \$548,000 in 1967/68. Their share of nursery and greenhouse imports quadrupled from a mere 1 percent to nearly 4 percent.

We gather our imported cut flower bouquet from about 20 countries and all continents.

Ecuador is one example of a major supplier. Like many other South American countries, it enjoys a "micro-climate" within its borders. The wide variety of altitudes and temperatures assures year-round crops of carnations, chrysanthemums, and other garden favorites—as well as tropical flowers and foliages.

Australia is another big cut flower supplier. In this case, our floral imports are mainly orchids—with special emphasis on the multicolored cymbidiums in lieu of the traditional lavender and white giant corsage types.

While our imports of cut flowers have risen 400 percent, our exports of cut blooms have risen 44 percent in the past 6 years. They are a valuable bunch —\$2.6 million in 1967/68.

In addition, we exported nearly \$2 million worth of bulbs, roots, and corms—and about \$5.7 million worth of miscellaneous nursery and greenhouse stock.

On the import side, bulbs and such made up over 90 percent of our purchases from abroad. The Netherlands is by far our biggest supplier of most items. Among the exceptions are lily-of-the-valley pips (West Germany), orchid plants (France), and tuberous begonias (Belgium). (22)

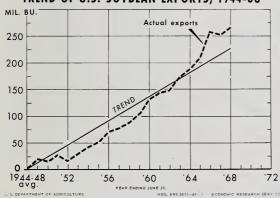
CHARTING THE COURSE

OF

SOYBEAN TRADE

Steadily bigger harvests, strong foreign demand, and aggressive market development have combined to make soybeans the leading U.S. crop as a dollar earner in foreign markets. We exported over \$1.1 billion worth of soybeans and soybean products in 1967/68, and our share of world exports has risen from 2 percent in 1934-38 to about 90 percent. Output from about 2 out of every 5 harvested soybean acres goes abroad as beans or products. (23)

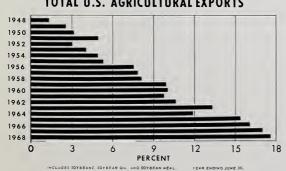
TREND OF U.S. SOYBEAN EXPORTS, 1944-68



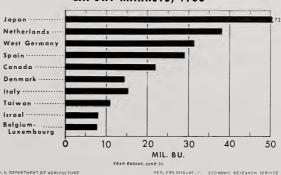
STATE SHARES OF U.S. SOYBEAN **EXPORTS**



U.S. SOYBEAN EXPORTS AS A SHARE OF TOTAL U.S. AGRICULTURAL EXPORTS



TEN LEADING U.S. SOYBEAN **EXPORT MARKETS, 1968**



17 May 1969

Sugarbeets Sweeten the Soviet Economy But Overload Handlers

Soviet sugar supplies are plentiful—coming from both homegrown beets and imported raw sugar from Cuban cane.

The USSR is the world's largest sugarbeet producer, and the 1968 harvest was its biggest

ever.

Plantings last season yielded a record 26.3 metric tons per hectare (11.7 short tons per acre). Total production spurted to a record 93.6 million metric tons. Yet growers had cut back planted area about 6 percent from 1967 when the previous record yield of 10.2 short tons per acre was reached.

(Yields in the United States, the world's second largest sugarbeet producer, have averaged well over 17 tons an acre in recent years. The 1968 yield was 17.9 tons and our harvest totaled 25.4 million tons.)

Soviet sugarbeets have been especially favored in the distribution of mineral fertilizers the past 5 years. Weather also favored 1968 plantings.

Growth was helped by summer rains in the western Ukraine and the central black earth region.

Most of the Soviet sugarbeets are taken by the government. But more beets than usual may have remained on farms in 1968 because the bumper harvest was expected to strain processing facilities.

An overload on plant capacity tends to delay processing and reduce the extraction rate. There are indications that it will be less than the 11.8 percent reported for 1967/68.

In addition to increases in domestic sugar from beets, sizable imports of raw sugar from Cuban cane have continued—averaging 2.1 million metric tons during 1961-66 and 2.5 million tons in 1967.

What are the Soviets doing

with all their sugar?

For one thing, they are using more. Per capita consumption had reached 81 pounds by 1967 and presumably has climbed several pounds since. (U.S. is about 97 pounds.)

The Soviets have also stepped up their exports of refined sugar. Shipments increased to a volume of 1,032,000 metric tons in 1967, compared with 993,000 tons in 1966.

Foreign buyers include more than 20 countries—mostly outside Eastern Europe. However, over half of the 1967 refined sugar exports went to five countries—Iran, Iraq, the United Arab Republic, Ceylon, and Afghanistan. (24)

Wheat Harvests in Pakistan And India Cut Needs for Import Aid

India and Pakistan will import 100 million to 150 million bushels less wheat this marketing year than last, when they took a total of 328 million bushels from all sources (90 percent under concessional terms).

Main reason: The 1968 wheat harvest in these two countries is estimated at 850 million bushels—up 265 million from 1967.

Our share of India's wheat imports for the year ending June 30, 1969, will barely exceed 100 million bushels, compared with last year's 212 million. And Pakistan's takings from us will probably be limited to the reduced July-December purchases already shipped.

During the past 4 years, exports by all sources to India and Pakistan totaled 300 to 330 million bushels annually. In the 4 years before that, they averaged 145 to 235 million bushels a year.

While import needs are now sharply reduced, foreign wheat must still be brought in to supplement domestic production for an increasing population. (25)

Water, Water Is Everywhere A Problem — Even for the USSR

The United States and the Soviet Union have a common problem—a limited water supply. But they have freen oceans apart in their approach to the problem so far.

Americans have been generally free to make their own decisions about use of water—largely within limits traditionally imposed by the doctrine of riparian rights in the eastern half of the country and the concept of prior appropriation in the West.

But with rising necessity, recent Federal legislation has established permanent river basin commissions to plan and coordinate the management of vital water resources. And a few Eastern States have tempered the equality of riparian doctrine with permit systems for water rights.

In the Soviet Union, all water is owned exclusively by the State. It assigns the right to use water. And users must follow the national economic plan when developing water resources. If desired water use doesn't match Soviet goals, the use will not be permitted.

Soviet water planning is done by separate groups responsible for different industries or sectors of the economy. In the past, there was no apparent overall control or coordination.

However, a new group has been set up to coordinate planning between agencies and oversee the whole planning program for water resources.

Conflicts arising in USSR water use are supposedly anticipated by planners. In theory, they avoid or resolve conflicts before water use is initiated. But in practice, water use conflicts do arise in the Soviet Union. And when no standing rules govern the situation, planners rely on ad hoc negotiations to resolve the problems as they come up. (26)

FOOD PRICES IN PERSPECTIVE

A decade ago, a market basket of U.S. farm foods cost about 14 percent less than now. But not all foods are up in price. Poultry and eggs are much cheaper today. Food prices vary month to month, week to week, even day to day. As a result, it's hard to see them in a long-range perspective.

Here, briefly, is what's been happening to food prices over the past decade—with a glance toward what's been happening elsewhere in the U.S. economy.

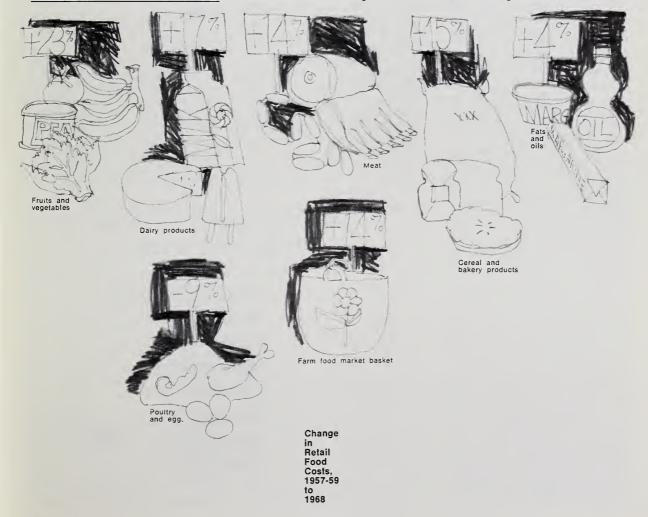
Price trends. All of the major food groups, with the exception of poultry and eggs, bore higher price tags in 1968 than in 1957-59.

In total, prices paid by consumers for a market basket of U.S. farm foods were up about 14 percent last year from 1957-59 levels. Most of that 14-percent in-

crease came in years after 1964.

In the early 1960's, food prices edged upwards at the gentle rate of a half percent a year. All of this rise was due to higher marketing costs. The farm value of a market basket of foods was actually lower in 1964 than in 1957-59.

But the pace of price rises



quickened since the start of 1965. Retail food costs climbed an average of 2-1/2 percent annually through 1968.

Marketing costs, since they comprise about three-fifths of the food dollar, contributed the largest part of the gain. But farm prices began moving up, too. By 1968, they were 12 percent higher than in 1957-59—as increases in personal incomes, sales to foreign countries, and military requirements boosted the demand for food.

Reasons for price rises. What happens to retail food prices depends largely on what happens to prices of goods and services used by the marketing industry—simply because marketing costs eat up such a large share of the retail food dollar.

Between 1957-59 and 1968, marketing costs rose about 15 percent—only slightly more than farm prices. But marketing costs accounted for about two-thirds of the increase in the retail cost of a market basket of foods.

Labor, particularly, has gotten more expensive for the marketing industry. By 1967, labor costs per hour—wages, salaries, and fringe benefits of persons engaged in marketing farm foods—were 47 percent higher than in 1957-59.

However, the rise in labor cost per unit of output was kept down to only about 18 percent. The reason: Technological improvements in marketing facilities, increased skills among workers and management, and economies of size substantially raised output per man-hour in the food marketing industry.

Prices of services purchased by marketing firms—such as rent and property insurance—averaged 30 percent higher in 1967 than a decade earlier, while the prices of new plants and equipment rose 13 percent.

In contrast, the price of marketing goods—such as packaging materials and electricity—remained fairly stable during the 1960's, while railroad freight rates for farm products declined from 1957-59 levels.

How food prices compare. The Consumer Price Index (CPI) measures changes in the prices of goods and services bought by urban wage earners and clerical workers. It covers the prices of everything people buy—food, clothing, automobiles, medical care, and so forth.

Between 1957-59 and 1968, the CPI increased by slightly more than 20 percent, while the price index for all food at home (farm and nonfarm, domestic and imported foods) was up more than 15 percent.

Never in the past 10 years has the price index of food at home been above the CPI—even in the years after 1964.

On the other hand, prices of restaurant meals in 1968 were 35 percent higher than in 1957-59.

Prices of many items, particularly services, have gone up more than the index of food at home. The price index of consumer services—another component of the CPI—includes such items as rent, medical care, and transportation

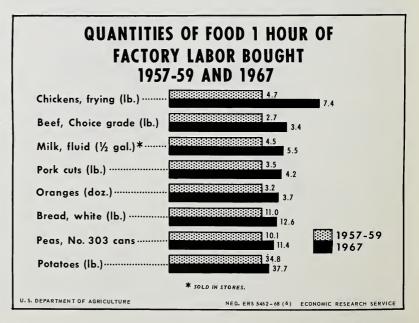
fares. This index has gone up 33 percent since 1957-59, or about twice as much as retail food prices.

Most of the items that have gone up less than food are other commodities such as apparel, automobiles, appliances, and furniture. The price index of all commodities except food (excluded to make the comparison more meaningful) rose 12-1/2 percent, or slightly less than retail food store prices between 1957-59 and last year.

Food prices in perspective. Although food prices have generally trended upward, the real cost of food must be measured against income.

In terms of the time the wage earner must work to pay for food, he was considerably better off in 1967 than a decade earlier.

For example, an hour's wage of a factory worker would buy 5-1/2 half-gallons of milk sold in stores in 1967, compared with 4-1/2 half-gallons in 1957-59. Yet dairy product prices climbed 17 percent between 1957-59 and 1968—more than the gain for almost any other food group. (27)



THE AGRICULTURAL ECONOMY AND TRADE OF BULGARIA. R. Bazala, Foreign Regional Analysis Division. ERS-For. 256.

Bulgaria has the fastest growing farm economy in Eastern Europe despite serious drought which hampered agriculture in 1968.

This report shows that about 80 percent of Bulgarian agricultural production comes from the collective and state farms. Only 1 percent of the farmland is in private hands.

The nation is an important source of food imports for the USSR, and its exports also earn hard currency from West European markets. In both markets, fruits, vegetables, and tobacco are important items.

Plans call for food processing to advance by more than a third during 1966-70. If achieved, the industry's output will equal 28 percent of total Bulgarian industrial production by 1970, and agricultural commodities will account for half the nation's exports, according to the report.

AGRICULTURAL STATISTICS OF EASTERN EUROPE AND THE SO-VIET UNION 1950-66. Communist Areas Analysis Section, Foreign Regional Analysis Division. ERS-For. 252.

This compilation covers such subjects as land use, population, production of selected crops, yield per hectare, livestock numbers, meat and dairy production, and per capita consumption of selected foods. The tables contain pre-World War II figures and annual figures from 1950 to 1966 for Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, Yugoslavia, and USSR.

SUPPLYING U.S. MARKETS WITH FRESH WINTER PRODUCE: CAPABILITIES OF U.S. AND MEXICAN PRODUCTION AREAS. C. J. Fliginger, Foreign Development Trade Division; L. A. Powell, Marketing Economics Division; R. P. Jenkins and E. E. Gavett, Farm Pro-



RECENT PUBLICATIONS

The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.

duction Economics Division. AER-154.

This is a comprehensive study of the production, marketing, and international aspects of the winter produce industry (primarily tomatoes, canteloups, and strawberries) and the comparative advantages of competing domestic and Mexican production areas. (See April 1969 Farm Index.)

CHARACTERISTICS OF BEEF CATTLE FEEDLOTS: CALIFORNIA, COLORADO, WESTERN CORN BELT. R. L. Burke, Marketing Economics Division. MRR-840.

The basic objective of this report is to describe cattle feeding operations in three major areas in the United States.

The study outlines feedlot size and ownership, fed cattle ownership, numbers, marketings, weight and grade for selected units in the three areas during July 1966–June 1967.

EVALUATING THE ECONOMIC STRUCTURE OF A RURAL AREA: DEMONSTRATION OF AN INPUT-OUTPUT ANALYSIS. H. A. Green, Economic Development Division. ERS-386.

This study describes the economic structure of a 10-county area in North Carolina in terms of an input-output matrix based on secondary data. This structure is presented in the context of growth trends and related background information and interprets the relationships.

THE PERUVIAN AGRICULTURAL SITUATION: A LOOK AHEAD. J. E. Hutchinson, Foreign Regional Analysis Division. ERS-For. 250.

This report summarizes recent developments in the Peruvian economy and gives supply and demand projections for selected agricultural commodities through 1980.

THE AGRICULTURAL SITUATION IN WESTERN EUROPE . . . THE COMMUNIST AREAS . . . THE WESTERN HEMISPHERE . . . THE FAR EAST AND OCEANIA. Foreign Regional Analysis Division. ERS-For. 258–263.

These five regional reports supplement *The World Agricultural Situation: Review of 1968 and Outlook for 1969, FAER-50.* Data may vary slightly from those in the world review, as the area studies are based on information available as of March 1, 1969.

A SURVEY OF AGRICULTURE IN ETHIOPIA. O. Sabatini and L. N. Samuel, Foreign Regional Analysis Division. ERS-For. 254.

Although Ethiopia's big cash crop today is coffee, livestock has great potential, according to this study of Ethiopia's agricultural and physical environment.

AN ECONOMETRIC MODEL FOR PREDICTING WATER-ORIENTED OUTDOOR RECREATION DEMAND. G. A. Gillespie, Natural Resource Economics Division, and D.

Brewer, Missouri Agricultural Experiment Station. ERS-402.

The model developed in this report is designed for use in estimating the demand of a metropolitan area for water-oriented outdoor recreation.

COSTS OF STORING AND HAN-DLING GRAIN IN COMMERCIAL ELEVATORS: 1967-68 AND PROJEC-TIONS FOR 1969-70. J. L. Ghetti, A. C. Schienbein, and R. C. Kite, Marketing Economics Division. ERS-401.

Reductions in stocks available for storage, a continued surplus of storage facilities, and increased costs of inputs caused a sharp increase in grain storage costs in 1967/68 and in estimated costs for 1969/70.

Lower average occupancy (only 39 percent in 1967/68 and about 40 percent in 1969/70, compared with 62 percent in 1964/65) was the major reason for higher costs. (See page 14, this issue.)

ISRAEL'S AGRICULTURAL ECON-OMY IN BRIEF. M. Kurtzig, Foreign Regional Analysis Division. ERS-For. 251.

Initially small-scale and underdeveloped, Israel's agriculture today is highly advanced and sophisticated. Agricultural production since 1948 has increased sixfold in value, at current prices. Agricultural exports totaled over \$140 million in 1967. (See March 1969 Farm Index.)

RESOURCES, COSTS AND RETURNS ON CATTLE RANCHES IN THE MOUNTAIN AREAS OF COLORADO BY SIZE OF RANCH. C. A. Nelson. and M. D. Skold, Colorado Agricultural Experiment Station, in cooperation with Farm Production Economics Division. Colo. Agr. Expt. Sta. Tech. Bull. 101.

Ranching is the predominant agricultural enterprise in these mountainous counties. The economic health of the livestock ranching industry greatly affects the agricultural economy of these areas.

COST OF FARM MACHINERY USED FOR COTTON PRODUCTION IN TEN-NESSEE. G. H. Glover. Farm Production Economics Division, in cooperation with the Tennessee Agricultural Experiment Station. Tenn. Agr. Expt. Sta. Bull. 448.

To make accurate decisions about the selection, maintenance, and use of farm machinery, information on costs is essential.

This report provides current information on the costs of machinery items used for cotton production in four major cotton-producing areas of Tennessee-Delta, Brown Soil, and Hill areas of West Tennessee, and the Limestone Valley Area of Middle Tennessee. The data should help farm operators, managers, planners, and others to make more accurate estimates of costs for machinery used to produce cotton in Tennessee.

STATISTICAL SUPPLEMENT TO AG-RICULTURAL ECONOMIC REPORT. 108: AN ECONOMIC SURVEY OF THE NORTHERN LAKE STATES REGION. L. B. Perkinson, Economic Development Division, in cooperation with the Michigan Agricultural Experiment Station. Mich. Agr. Expt. Sta. AER-Supp. 108.

This statistical supplement was prepared to aid public and private groups and individuals interested in stimulating economic growth in the Lake States-Michigan, Minnesota, Wisconsin. Its main purpose is to bring together a broad array of social and economic data from many sources to provide a basic handbook of county, substate, and State data. Those interested in a summary and analysis of the Region are referred to An Economic Survey of the Northern Lake States Region, AER-108.

INDICES OF AGRICULTURAL PRO-DUCTION FOR THE WESTERN HEM-ISPHERE EXCLUDING THE UNITED STATES. Western Hemisphere Branch, Foreign Regional Analysis Division, ERS-For. 264.

Total agricultural production increased during the 1960's in most of our Western Hemisphere neighbor nations, and the per capita food production increased in all of five areas except the Caribbean, according to this updated report covering the 1959-68 period in 24 foreign nations of our hemisphere.

Numbers in parentheses at end of stories refer to sources listed below:

1. C. V. Moore and J. H. Snyder, Risk and Uncertainty in Lettuce Production in Salinas Valley, California, Calif. Agr. Expt. Sta., Gian-Froduction in Sainas Valley, California, Calif. Agr. Expt. Sta., Glandinia Found. Res. Rep. No. 300 (P*); 2. Robert Jenkins and others, Farmers' Expenditures for Custom Pesticide Service in 1964, AER-146 (P); 3. Wayne D. Rasmussen (SM); 4. William Scofield, Agricultural Corporations Today (S); 5. Fats and Oils Situation, FOS-247 (P); 6. Paul Holm and W. N. Schaller (SM); 7. Farm Cost Situation, FCS-40 (P); 8. R. A. Christiansen and others, Private Fishing Enterprises in Wisconsin's Some Feorence Assets, Wis Agr. Fort Str. prises in Wisconsin; Some Economic Aspects, Wis. Agr. Expt. Sta. (M*); 9. William R. Summitt (SM); 10. Farm Cost Situation, FCS-40 (M°); 9. William R. Summitt (SM); 10. Farm Cost Situation, FCS-40 (P); 11. D. Brewer and G. A. Gillespie, An Analysis of the Socio-Economic Factors Affecting Participation in Water-Oriented Outdoor Recreation (M); 12. J. M. Davis and P. House, Open Space: Its Use and Preservation, Misc. Pub. 1121 (P); 13. Kermit Bird (SM); 14. William H. Freund and Michael G. Van Dress, Food Service Equipment: Estimated Number of Units by Kind of Business, ERS-392 (P); 15. Feed Situation, FdS-227 (P); 16. National Food Situation, NFS-127 (P); 17. C. A. Wilmot, D. L. Shaw, Z. M. Looney, Cotton Gin Operat-

ing Costs in West Texas, MRR-844 (P); 18. Arthur G. Conover, Longer Range Prospects for Domestic Consumption of Cigarette Tobacco 19. J. L. Ghetti, A. G. Schienbein, R. C. Kite, Costs of Storing and Handling of Grains in Commercial Elevators, 1967-68 and Projections for 1969-70, ERS-401 (P); 20. Dona'd B. Agnew, Improvement in Grades of Hogs Slaughtered, 1967-68 and 1960-61 (M); 21. Kathryn H. Wylie, A Survey of Agriculture in Cuba (M); 22. and 23. I. E. Lemon, "U.S. Foreign Trade in Nursery and Greenhouse Stock," and "Soybeans—Top Dollar Export Earner," For. Agr. Trade, April '69 (P); 24. Foreign Regional Analysis Division, The Agricultural Situa-(P): 24. Foreign Regional Analysis Division, The Agricultural Situation in Communist Areas, ERS-For, 259 (P) and David Schoonover (SM): 25. Wheat Situation, WS-207 (P): 26. P. N. Davis, Soviet and American Water Law: Two Approaches To a Common Problem (M): 27. Marketing Economics Division, Food Costs; 29. Cotton Situation, CS-240 (P). Misc. Pub. 1133 (P): 28. Trienah Meyers (SM). Speech (S): published report (P): unpublished manuscript (M): special material (SM): *State publications may be obtained only by writing to the experiment station or university cited.

ECONOMIC TRENDS

	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1968		1969		
ITEM			YEAR	MARCH	JANUARY	FEBRUARY	MARCH
Prices: Prices received by farmers Crops Livestock and products Prices paid, interest, taxes, and wage rates Family living items Production items Parity ratio	1910-14=100 1910-14=100 1910-14=100 1910-14=100 1910-14=100 1910-14=100	242 223 258 293 286 262 83	260 228 288 354 335 292 73	258 229 282 350 330 292 74	263 220 299 363 342 296 72	267 225 302 365 344 299 73	272 229 308 369 347 303 74 111.7
Wholesale prices, all commodities Industrial commodities Farm products Processed foods and feeds Consumer price index, all items Food	1957-59=100 1957-59=100 1957-59=100 1957-59=100 1957-59=100 1957-59=100		108.7 109.0 102.2 114.1 121.2 119.3	108.2 108.6 102.1 112.9 119.5 117.9	110.7 110.9 104.9 116.0 124.1 122.0	111.1 111.4 105.0 116.3 124.6 121.9	111.7 111.9 106.5 116.4
Farm Food Market Basket: ¹ Retail cost Farm value Farm-retail spread Farmers' share of retail cost	Dollars Dollars Dollars Percent	983 388 595 39	1,118 434 684 39	1,104 432 672 39	1,138 446 692 39	1,136 452 684 40	=======================================
Farm Income: ² Volume of farm marketings Cash receipts from farm marketings Crops Livestock and products Realized gross income ³ Farm production expenses ³ Realized net income ³	1957-59=100 Million dollars Million dollars Million dollars Billion dollars Billion dollars Billion dollars	32,247 13,766 18,481 — —	126 44,065 18,424 25,641 450.8 435.9 414.9	94 2,870 854 2,016 49.8 35.4 14.4	127 3,696 1,466 2,230 — —	98 3,033 1,004 2,029 — —	102 3,300 1,000 2,300 51.8 37.0 14.8
Agricultural Trade: Agricultural exports Agricultural imports	Million dollars Million dollars	4,105 3,977	4 6,228 4 5,028	545 370	178 209	240 316	=
Land Values: Average value per acre Total value of farm real estate	1957-59=100 Billion dollars	=	_	⁵ 166 ⁵ 188.8	⁶ 116 ⁶ 200.6	_	=
Gross National Product: 3 Consumption 3 Investment 3 Government expenditures 3 Net exports 3	Billion dollars Billion dollars Billion dollars Billion dollars Billion dollars	457.3 294.2 68.0 92.4 2.7	860.6 533.8 127.7 197.2 2.0	831.2 519.4 119.7 190.5 1.5		= =	903.4 558.4 138.9 206.2 zero
Income and Spending: 7 Personal income, annual rate Total retail sales, monthly rate Retail sales of food group, monthly rate	Billion dollars Million dollars Million dollars	365.3 17,098 4,160	685.8 28,309 6,106	670.0 27,996 6,026	716.1 29,989 6,315	721.4 29,359 6,366	726.7 29,585 —
Employment and Wages: ⁷ Total civilian employment Agricultural Rate of unemployment Workweek in manufacturing Hourly earnings in manufacturing, unadjusted	Millions Millions Percent Hours Dollars	63.9 5.7 5.8 39.8 2.12	75.9 3.8 3.6 40.7 3.01	75.8 4.0 3.7 40.7 2.96	77.2 3.8 3.3 40.6 3.12	77.7 3.9 3.3 40.1 3.12	77.8 3.7 3.4 40.6 3.13
Industrial Production: 7	1957-59=100	_	165	163	169	170	171
Manufacturers' Shipments and Inventories: Total shipments, monthly rate Total inventories, book value end of month Total new orders, monthly rate	Million dollars Million dollars Million dollars	28,745 51,549 28,365	50,310 88,579 50,597	48,446 83,759 49,566	52,801 88,905 53,119	53,488 89,335 54,051	=

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. ² Annual and quarterly data are on 50-State basis; monthly data are on 48-State basis; ³ Annual rates seasonally adjusted first quarter. ⁴ Preliminary. ⁵ As of November 1, 1968. ² Seasonally adujsted.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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Toward Better Diets

What constitutes a "good" diet? Everybody who cooks or eats should know the answer—but many don't.

To give more of America's homemakers "know-how" in selecting and preparing foods for their families, the Department of Agriculture recently launched the National Nutrition Education Program in the 50 States and the U.S. territories. The current program is designed especially for homemakers in low-income families, where the problem of poor diets is most acute.

In each State, local extension home economists supervise the program, using program aides recruited in low-income areas where there appears to be a need for help in raising dietary levels.

The 5,400 aides will be working with their neighbors and other residents in their local community. In addition to giving homemakers food counsel, they'll also advise them about food assistance programs for which they are eligible, and of other available resources in the community.

ERS economists will be collecting information on selected socioeconomic characteristics of a family as it enters the program and at intervals as the family continues in the program.

They will also take a measure of nutrition knowledge and food intake of the woman of the household early in the program and each 6 months thereafter; information about participation in food assistance programs; and data on the extent to which a program aide works with a family. (28)

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